## HILL DESCENT CONTROL

Hill Descent Control (HDC) operates in conjunction with the anti-lock braking system to provide greater control in off-road situations particularly when descending severe gradients.

HDC can be used in **D**, **R** and CommandShift. When in **D**, HDC will automatically select the most appropriate gear to enable a controlled descent. The vehicle should not be driven with the HDC active in **N** neutral, unless the driver is changing gear range using the transfer gearbox.

**Note:** Some of the Terrain Response program/ range combinations will activate and deactivate HDC automatically. If HDC is selected manually, it will not be deactivated by Terrain Response.

#### **HDC** information indicator



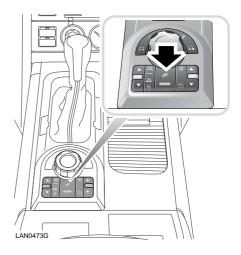
HDC can be selected at speeds below 80 km/h (50 mph), but the vehicle has to be travelling at less

than 50 km/h (30 mph) for the system to operate.

The green HDC information indicator will illuminate continuously when HDC operating conditions are met; e.g. vehicle speed reduces below 50 km/h (30 mph) - and HDC is activated.

If the information indicator is flashing, HDC has been selected, but the system's operating conditions have not been met (e.g. the vehicle is travelling too fast), or HDC fade-out is occurring. See **HDC fade-out, 179**.

If HDC is already selected and vehicle speed rises above 50 km/h (30 mph), HDC is suspended and the information indicator will flash. A message will also appear in the main message centre.



### To select HDC

Press and release the switch (arrowed) to select HDC (HDC information indicator illuminates). To deselect, press and release again (indicator extinguishes).

If HDC is deselected when HDC is operating, the system fades out, allowing the vehicle to gradually increase in speed.

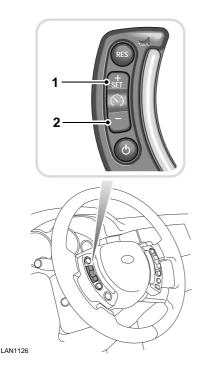
When used in Low range, HDC is able to control the vehicle to a lower target speed. Use Low range gears when steep descents are to be attempted.

**Note:** HDC is automatically deselected if the vehicle ignition is switched off for more than 6 hours.

### HDC in action

HDC should be used in conjunction with an appropriate gear selection. HDC can be used in  $\mathbf{D}$ ,  $\mathbf{R}$  and CommandShift. When in  $\mathbf{D}$ , HDC will automatically select the most appropriate gear to enable a controlled descent.

During a descent, HDC will maintain a target speed of up to a maximum of 20 km/h (20 mph). If engine braking is insufficient to control the vehicle speed, HDC automatically operates the brakes to slow the vehicle and maintain a speed relative to the selected gear range and the accelerator pedal position.



While HDC is controlling the vehicle speed, the target speed can be varied using the steering wheel-mounted cruise control (1) + and (2) - switches. To reduce the target descent speed, press and hold the - switch. The vehicle speed at the point of switch release will become the new target speed.

To set the minimum target speed for the selected gear, bring the vehicle to a halt using the foot brake, before releasing the foot brake and beginning the descent.

# *Note:* Each gear has a pre-defined minimum descent speed.

To increase the target descent speed, press and hold the + switch. The vehicle speed at the point of switch release will become the new target speed. Alternatively, the target speed can be adjusted by tapping the + or - switches. Each press of the switch will adjust the target speed by approximately 0.5 km/h (0.3 mph).

**Note:** The descent speed will only increase if the gradient is sufficiently steep to cause the vehicle to accelerate as the braking effect is reduced. On a shallow slope, pressing the + switch may result in no speed increase.

When driving off-road, HDC can be permanently selected to ensure that control is maintained. ABS and traction control are still fully operational and will assist if the need arises.

# **Note:** With HDC selected, gear changes can be carried out in the normal way.

If the brake pedal is depressed when HDC is active, HDC is overridden and the brakes will perform as normal (a pulsation might be felt through the brake pedal). If the brake pedal is then released, HDC will recommence operating at the speed at which the brakes were released. In extreme circumstances, the HDC system may cause brake temperatures to exceed their pre-set limits. If this occurs. **HDC** 

TEMPORARILY NOT AVAILABLE SYSTEM COOLING will be displayed in the message centre. HDC will then fade out and become temporarily inactive. HDC will not be available until the brakes reach an acceptable temperature, at which time the warning message will disappear from the message centre and HDC will, if required, resume operating.

If a fault is detected in the HDC system, **HDC FAULT SYSTEM NOT AVAILABLE** will appear in the message centre. If the fault is detected while the system is active, HDC will fade out. Do not attempt a steep descent when HDC is unavailable or use a very low gear and/or the foot brake. If a fault has been detected, consult your Land Rover Dealer/Authorised Repairer at the earliest opportunity.

#### HDC fade-out

HDC fade-out regulates the vehicle's acceleration in a controlled manner, by reducing brake pressure, until the rate of hill descent is controlled by engine braking alone. HDC will then enter stand-by mode. During fade-out, the HDC information indicator will flash.

If required (e.g. the angle of the descent levels out significantly), fade-out may be achieved deliberately by deselecting HDC while the system is operating - the information indicator will extinguish.